

SEOUENCE LISTING

0> Reiter, Robert E.
 Witte, Owen N.
 Saffran, Douglas C.
 Jakobovits, Aya

<120> PSCA: PROSTATE STEM CELL ANTIGEN AND USES THEREOF

<130> 30435.69USD4

<140> 09/855,632 <141> 2001-05-14

<150> 09/564,329 <151> 2000-05-03

<150> 09/359,326 <151> 1999-07-20

<150>09/318,503 <151> 1999-05-25

.<150> 09/251,835 // ... <151> 1999-02-17

<150> 09/203,939 < 151> 1998-12-02

<150> 09/038,261 < <151> 1998-03-10

<150> 60/124,658 <151> 1999-03-16

<150> 60/120,536

<151> 1999-02-17

<150> 60/113,230 <151> 1998-12-21

<150> 60/074,675 <151> 1998-02-13

<150> 60/071,141 <151> 1998-01-12

~150× 60/220 01*6*

<150> 60/228,816 <151> 1997-03-10

<160> 27

<170> PatentIn Ver. 2.0

<210> 1

<211> 998

<212> DNA

```
<213> Homo sapiens
          <220>
          <221> misc feature
          <222> (543)
          <223> any nucleotide (i.e., a, c, g or t)
          <221> misc_feature
          <222> (580)
          <223> any nucleotide (i.e., a, c, g or t)
         <220>
          <221> misc_feature
          <222> (584)
          <223> any nucleotide (i.e., a, c, g or t)
                                    and the state of t
        <221> misc feature
       <222> (604)
          <223> any nucleotide (i.e., a, c, g or t)
         <220>
      <220>
<221> mlsc_feature
  <222> (608)
    <223> any nucleotide (i.e., a, c, g or t)
<220>
          <221> misc feature
        <222> (615)
         <223> any nucleotide (i.e., a, c, g or t)
        ি বিশ্ব কৰি ক্রিয়া স্থান করিছে।
|<220>টা স্থান স্থান
        <221> misc_feature
<222> (636)
          <223> any nucleotide (i.e., a, c, g or t)
          <220>
        <221> misc_feature
         <222> (640)
          <223> any nucleotide (i.e., a, c, g or t)
          <220>
          <221> misc_feature
          <222> (646)
          <223> any nucleotide (i.e., a, c, g or t)
          <220>
          <221> misc feature
          <222> (697)
          <223> any nucleotide (i.e., a, c, g or t)
          <220>
          <221> misc feature
          <222> (926)
          <223> any nucleotide (i.e., a, c, g or t)
```

```
agggagagge agtgaccatg aaggetgtge tgettgeeet gttgatggea ggettggeee 60
 tgcagccagg cactgccctg ctgtgctact cctgcaaagc ccaggtgagc aacgaggact 120
 gcctgcaggt ggagaactgc acccagctgg gggagcagtg ctggaccgcg cgcatccgcg 180
 cagttggcct cctgaccgtc atcagcaaag gctgcagctt gaactgcgtg gatgactcac 240
 aggactacta cgtgggcaaq aagaacatca cgtgctgtga caccgacttg tgcaacgcca 300
 geggggeeca tgeeetgeag eeggetgeeg ceateettge getgeteeet geacteggee 360
 tgctgctctg gggacccggc cagctatagg ctctgggggg ccccgctgca gcccacactg 420
 ggtgtggtgc cccaggcctt tgtgccactc ctcacagaac ctggcccagt gggagcctgt 480
 cctggttcct gaggcacatc ctaacqcaag tttqaccatg tatgtttgca ccccttttcc 540
 cenaaceetg acetteecat gggeetttte caggatteen acenggeaga teagttttag 600
 tganacanat ccgcntgcag atggcccctc caacentttn tgttgntgtt tccatggccc 660
 agcattttcc accettaace etgtgttcag geacttntte eeccaggaag cetteeetge 720
 ccaccccatt tatgaattga gccaggtttg gtccgtggtg tcccccgcac ccagcagggg 780
 acaggcaatc aggagggccc agtaaaggct gagatgaagt ggactgagta gaactggagg 840
 acaagagttg acgtgagttc ctgggagttt ccagagatgg ggcctggagg cctggaggaa 900
 ggggccaggc ctcacatttg tggggntccc gaatggcagc ctgagcacag cgtaggccct 960
 taataaacac ctgttggata agccaaaaaa aaaaaaaa
 <210> 2
 <211> 123
 <212> PRT
 <213> Homo sapiens
 对我们依赖亚克
 <220>
 <221> PEPTIDE
 <222> (50)..(64)
 <220>
 <221> PEPTIDE
 <222> (71) . . (82)
<220>
<221> PEPTIDE
 <222> (67)..(81)
 <400> 2
 Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln
                                   Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn
                                  25
                                                      30
 Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys
 Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
      50
 Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly
  65
                                                               نة تظميد 0 8
 Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly
 Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala
```

110

100

<400> 1

```
Leu Gly Leu Leu Trp Gly Pro Gly Gln Leu
       <210> 3
       <211> 441
       <212> DNA
       <213> Mus musculus
       <400> 3
      atgaagacag tttttttat cctgctggcc acctacttag ccctgcatcc aggtgctgct 60
       ctgcagtgct attcatgcac agcacagatg aacaacagag actgtctgaa tgtacagaac 120
       tgcagcctgg accagcacag ttgctttaca tcgcgcatcc gggccattgg actcgtgaca 180
    gttatcagta agggetgeag etcacagtgt gaggatgaet eggagaacta etatttggge 240
       aagaagaaca tcacgtgctg ctactctgac ctgtgcaatg tcaacggggc ccacaccctg 300
       aagccaccca ccaccctggg gctgctgacc gtgctctgca gcctgttgct gtggggctcc 360
   agccgtctgt aggctctggg agagcctacc atagcccgat tgtgaaggga tgagctgcac 420.
  tccacccac cccacacag g
      <210>.4
    <211> 123
    <212> PRT
       <400> 4
      Met Lys Thr Val Phe Phe Ile Leu Leu Ala Thr Tyr Leu Ala Leu His
经数1.000
                                                    TO THE STATE OF TH
                                                                                                     10
       Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn A
                                        20
       Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
       Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
                   50
      Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
                          70
                                                                                    75
       Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Gly
      Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
                                      100
                                                                                         105
       Cys Ser Leu Leu Leu Trp Gly Ser Ser Arg Leu
```

120

<210> 5 <211> 131 <212> PRT <213> Homo sapiens

Met Lys Ile Phe Leu Pro Val Leu Leu Ala Ala Leu Leu Gly Val Glu Arg Ala Ser Ser Leu Met Cys Phe Ser Cys Leu Asn Gln Lys Ser Asn Leu Tyr Cys Leu Lys Pro Thr Ile Cys Ser Asp Gln Asp Asn Tyr Cys Val Thr Val Ser Ala Ser Ala Gly Ile Gly Asn Leu Val Thr Phe Gly 60 His Ser Leu Ser Lys Thr Cys Ser Pro Ala Cys Pro Ile Pro Glu Gly Val Asn Val Gly Val Ala Ser Met Gly Ile Ser Cys Cys Gln Ser Phe 🖫 Leu Cys Asn Phe Ser Ala Ala Asp Gly Gly Leu Arg Ala Ser Val Thr - Barrier for a service of the same was the first of the Leu Leu Gly Ala Gly Leu Leu Ser Leu Leu Pro Ala Leu Leu Arg 115 Phe Gly Pro 130 <211> 123 <212> PRT <213> Homo sapiens <400> 6 Met Lys Ala Val Leu Leu Ala Leu Leu Met Ala Gly Leu Ala Leu Gln Pro Gly Thr Ala Leu Leu Cys Tyr Ser Cys Lys Ala Gln Val Ser Asn Glu Asp Cys Leu Gln Val Glu Asn Cys Thr Gln Leu Gly Glu Gln Cys Trp Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys Gly Cys Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys Lys Asn Ile Thr Cys Cys Asp Thr Asp Leu Cys Asn Ala Ser Gly Ala His Ala Leu Gln Pro Ala Ala Ala Ile Leu Ala Leu Leu Pro Ala Leu Gly Leu Leu Trp Gly Pro Gly Gln Leu

```
<210> 7
      <211> 123
      <212> PRT
      <213> Mus musculus
      <400> 7
      Met Lys Thr Val Leu Phe Leu Leu Leu Ala Thr Tyr Leu Ala Leu His
      Pro Gly Ala Ala Leu Gln Cys Tyr Ser Cys Thr Ala Gln Met Asn Asn
                                25 30
      Arg Asp Cys Leu Asn Val Gln Asn Cys Ser Leu Asp Gln His Ser Cys
              35 40
                                      45
      Phe Thr Ser Arg Ile Arg Ala Ile Gly Leu Val Thr Val Ile Ser Lys
       t Africa South
     Gly Cys Ser Ser Gln Cys Glu Asp Asp Ser Glu Asn Tyr Tyr Leu Gly
Lys Lys Asn Ile Thr Cys Cys Tyr Ser Asp Leu Cys Asn Val Asn Glŷ
85 90 95
      Ala His Thr Leu Lys Pro Pro Thr Thr Leu Gly Leu Leu Thr Val Leu
     100 105 110
      Cys Ser Leu Leu Trp Gly Ser Ser Arg Leu
            115
      <210> 8
      <211> 20
      <212> DNA
      <213> Artificial Sequence
      <223> Description of Artificial Sequence: RT-PCR PRIMER
      <400> 8
      ttctcctgct ggccacctac
                                                             20
      <210> 9
      <211> 20
      <212> DNA
      <213> Artificial Sequence
      <220>
      <223> Description of Artificial Sequence: RT-PCR PRIMER
      <400> 9
      gcagctcatc ccttcacaat
                                                             20
      <210> 10
```

<211> 408

```
<212> DNA
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: MONOCLONAL
      ANTIBODY 1G8
 <400> 10
 tgcttcttcc tgatggcagt ggttatagga gtcaattcag aggttcagct gcagcagtct 60
 ggggcagaac ttgtgaggtc aggggcctca gtcaagttgt cctgcacagc ttctggcttc 120
 aacattaaag actactatat acactgggtg aatcagaggc ctgaccaggg cctggagtgg 180
 attggatgga ttgatcctga gaatggtgac actgaatttg tcccgaagtt ccagggcaag 240
 gccactatga ctgcagacat tttctccaac acagcctacc tgcacctcag cagcctgaca 300
 tctgaagaca ctgccgtcta ttactgtaaa acggggggtt tctgggggcca agggactctg 360'
 gtcactgtct ctgcagccaa aacgacaccc ccatctgtct atccactg
 <210> 11
 <211> 136
 <212> PRT
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 1G8
 <400> 11
 Cys Phe Phe Leu Met Ala Val Val Ile Gly Val Asn Ser Glu Val Gln
  Leu Gln Gln Ser Gly Ala Glu Leu Val Arg Ser Gly Ala Ser Val Lys
 Leu Ser Cys Thr Ala Ser Gly Phe Asn Ile Lys Asp Tyr Tyr Ilé His
 Trp Val Asn Gln Arg Pro Asp Gln Gly Leu Glu Trp Ile Gly Trp Ile
     50
 Asp Pro Glu Asn Gly Asp Thr Glu Phe Val Pro Lys Phe Gln Gly Lys
           70
 Ala Thr Met Thr Ala Asp Ile Phe Ser Asn Thr Ala Tyr Leu His Leu
 Ser Ser Leu Thr Ser Glu Asp Thr Ala Val Tyr Tyr Cys Lys Thr Gly
            100
 Gly Phe Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr
 Thr Pro Pro Ser Val Tyr Pro Leu
```

<210> 12 <211> 426 <212> DNA

```
<220>
<223> Description of Artificial Sequence: MONOCLONAL
     ANTIBODY 4A10
<400> 12
ttggtagcaa cagcctcaga tgtccactcc caggtccaac tgcagcaacc tgggtctgaa 60
ctggtgaggc ctggaacttc agtgaagctg tcctgcaagg cttctggcta tacattctcc 120
agctactgga tgcactgggt gaagcagagg cctggacaag gccttgagtg gattggaaat 180
attgaccetg gtagtggtta cactaactac getgagaace teaagaceaa ggeeacactg 240
actgtagaca catcetecag cacageetac atgeagetea geageetgae atetgaggae 300
tetgeagtet attactgtae aageegatet actatgatta egaegggatt tgettactgg 360
ggccaaggga ctctggtcac tgtctctgca gctacaacaa cagccccatc tgtctatcca 420
<211> 142
<212> PRT
<213> Artificial Sequence
<223> Description of Artificial Sequence: MONOCLONAL
ANTIBODY 4A10
<400> 13
Leu Val Ala Thr Ala Ser Asp Val His Ser Gln Val Gln Leu Gln Gln
10 15
Pro Gly Ser Glu Leu Val Arg Pro Gly Thr Ser Val Lys Leu Ser Cys
Lys Ala Ser Gly Tyr Thr Phe Ser Ser Tyr Trp Met His Trp Val Lys
                       40
Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile Gly Asn Ile Asp Pro Gly
Ser Gly Tyr Thr Asn Tyr Ala Glu Asn Leu Lys Thr Lys Ala Thr Leu 🕚 😂
    70
                             75
                                           80
Thr Val Asp Thr Ser Ser Ser Thr Ala Tyr Met Gln Leu Ser Ser Leu
                                 90
Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys Thr Ser Arg Ser Thr Met
          100
Ile Thr Thr Gly Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
       115
                         120
                                           125
Ser Ala Ala Thr Thr Ala Pro Ser Val Tyr Pro Leu Ala
                     135
```

<213> Artificial Sequence

<210> 14 <211> 453 <212> DNA

```
<213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: MONOCLONAL
      ANTIBODY 2H9
 <400> 14
 aatgacttcg ggttgagctg ggtttttatt attgttcttt taaaaggggt ccggagtgaa 60.
 gtgaggettg aggagtetgg aggaggetgg gtgcaacetg gaggatecat gaaactetee 120
_tgtgtagect_ctggatttac_tttcagtaat_tactggatga_cttgggtccg_ccagtctcca/180_
 gagaaggggc ttgagtgggt tgctgaaatt cgattgagat ctgaaaatta tgcaacacat 240
: tatgcggagt: ctgtgaaagg gaaattcacc atctcaagag atgattccag aagtcgtctc 300
 tacctgcaaa tgaacaactt aagacctgaa gacagtggaa tttattactg tacagatggt 360
 ctgggacgac ctaactgggg ccaagggact ctggtcactg tetetgcage caaaacgaca 420
 ccccatctg tctatccact ggccccttgt gta
 <211> 151
<212>. PRT
 <213> Artificial Sequence
 <220>
 <223> Description of Artificial Sequence: MONOCLONAL
  ANTIBODY 2H9
 <400> 15
 Asn Asp Phe Gly Leu Ser Trp Val Phe Ile Ile Val Leu Leu Lys Gly
                               10
 Val Arg Ser Glu Val Arg Leu Glu Glu Ser Gly Gly Trp Val Gln
                             25
                                                   30
                              OF BUILDING
 Pro Gly Gly Ser Met Lys Leu Ser Cys Val Ala Ser Gly Phe Thr Phe
Ser Asn Tyr Trp Met Thr Trp Val Arg Gln Ser Pro Glu Lys Gly Leu
Glu Trp Val Ala Glu Ile Arg Leu Arg Ser Glu Asn Tyr Ala Thr His
65 70 75 80
            70 75
 Tyr Ala Glu Ser Val Lys Gly Lys Phe Thr Ile Ser Arg Asp Asp Ser
                                    90
                                                       95
 Arg Ser Arg Leu Tyr Leu Gln Met Asn Asn Leu Arg Pro Glu Asp Ser
            100
 Gly Ile Tyr Tyr Cys Thr Asp Gly Leu Gly Arg Pro Asn Trp Gly Gln
         115
                            120
 Gly Thr Leu Val Thr Val Ser Ala Ala Lys Thr Thr Pro Pro Ser Val
                        135
 Tyr Pro Leu Ala Pro Cys Val
```

145

```
<210> 16
 <211> 15
 <212> PRT
 <213> Homo sapiens
 <400> 16
 Thr Ala Arg Ile Arg Ala Val Gly Leu Leu Thr Val Ile Ser Lys
                5
 <210> 17
<211> 12
 <212> PRT
 <213> Homo sapiens
 <400> 17
 Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys Lys
 <211> 15
<212> PRT
<213> Homo sapiens
 <400> 18
 Ser Leu Asn Cys Val Asp Asp Ser Gln Asp Tyr Tyr Val Gly Lys
                                10
 <210> 19
<211> 21
 <212> DNA
<<213> Artificial Sequence
 <223> Description of Artificial Sequence: RT-PCR PRIMER
 <400> 19
 tgcttgccct gttgatggca g
 <210> 20
 <211> 22
 <212> DNA
 <213> Artificial Sequence
 <223> Description of Artificial Sequence: RT-PCR PRIMER
 <400> 20
 ccagagcagc aggccgagtg ca
 <210> 21
 <211> 25
 <212> DNA
  <213> Artificial Sequence
```

```
<220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER
 <400> 21
 gggäattcgc acagccttca gggtc
 <210> 22
 <211> 32
 <212> DNA
 <213>-Artificial Sequence
 <223> Description of Artificial Sequence: RT-PCR PRIMER
 <400> 22
ggagaattca tggcactgcc ctgctgtgct ac
<211> 30
 <213> Artificial Sequence
 <223 > Description of Artificial Sequence: RT-PCR PRIMER
 <400> 23
ggagaattee taatgggeee egetggegtt
 <210> 24
·<211> 26
 <212> DNA
<213> Artificial Sequence
 <223> Description of Artificial Sequence: RT-PCR PRIMER
<400> 24
gggaagettg cacageette agggte
<210> 25
<211> 39
<212> DNA
<213> Artificial Sequence
<220>
 <223> Description of Artificial Sequence: RT-PCR PRIMER
<220>
 <221> misc feature
<222> (18)
<223> a or g
 <220>
 <221> misc_feature
 <222> (22)
 <223> g or c
```

```
<220>
   <221> misc_feature
   <222> (28)
   <223> g or t
   <220>
   <221> misc feature
  <222> (31)
   <223> a or c
  <220>
  <221> misc_feature
   <222> (34)
   <223> g or c
   <400> 25
   ggcgatatcc accatggrat gsagctgkgt matsctctt
  <211> 39
  <212> DNA
<213> Artificial Sequence
  <223> Description of Artificial Sequence: RT-PCR PRIMER
   <221> misc_feature
  <222> (11)
<223> c or t
   <221> misc feature
  <222> (25)..(26)
  <223> a or g
   <400> 26
   agggaattca yctccacaca caggrrccag tggatagac
  <210> 27
   <211> 39
   <212> DNA
   <213> Artificial Sequence
   <223> Description of Artificial Sequence: RT-PCR PRIMER
   <220>
   <221> misc_feature
   <222> (17)
   <223> a or g
   <220>
   <221> misc_feature
   <222> (26)
   <223> c or t
```

<220>
<221> misc_feature
<222> (33)
<223> g or t
<400> 27
ggggatatcc accatgract tcgggytgag ctkggtttt